

## Implementation Plan

### Project 2007-09 Generator Verification

#### **Implementation Plan for PRC-024-1, Generator Frequency and Voltage Protective Relay Settings**

##### ***Approvals Required***

PRC-024-1 – Generator Frequency and Voltage Protective Relay Settings.

According to its Implementation Plan, PRC-006-1, Requirement R4 (see project 2007-01, Underfrequency Load Shedding) does not become effective until PRC-024-1 becomes effective. Upon the effective date of PRC-024-1, R4 of PRC-006-1 will also go into effect.

##### ***Prerequisite Approvals***

None

##### ***Revisions to Glossary Terms***

None

##### ***Applicable Entities***

Generator Owner

##### ***Conforming Changes to Other Standards***

None

##### ***Effective Dates***

In those jurisdictions where regulatory approval is required:

- By the first day of the first calendar quarter, two calendar years following applicable regulatory approval, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities, each Generator Owner shall have verified at least 40 percent of its applicable Facilities are fully compliant with Requirements R1, R2, R3, and R4.
- By the first day of the first calendar quarter, three calendar years following applicable regulatory approval, or as otherwise made effective pursuant to the laws applicable to

- such ERO governmental authorities, each Generator Owner shall have verified at least 60 percent of its applicable Facilities are fully compliant with Requirements R1, R2, R3, and R4.
- By the first day of the first calendar quarter, four calendar years following applicable regulatory approval, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities, each Generator Owner shall have verified at least 80 percent of its applicable Facilities are fully compliant with Requirements R1, R2, R3, and R4.
  - By the first day of the first calendar quarter, five calendar years following applicable regulatory approval, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities, each Generator Owner shall have verified 100 percent of its applicable Facilities are fully compliant with Requirements R1, R2, R3, and R4.

In those jurisdictions where regulatory approval is not required:

- By the first day of the first calendar quarter, two calendar years following Board of Trustees approval, each Generator Owner shall have verified at least 40 percent of its applicable Facilities are fully compliant with Requirements R1, R2, R3, and R4.
- By the first day of the first calendar quarter, three calendar years following Board of Trustees approval, each Generator Owner shall have verified at least 60 percent of its applicable Facilities are fully compliant with Requirements R1, R2, R3, and R4.
- By the first day of the first calendar quarter, four calendar years following Board of Trustees approval, each Generator Owner shall have verified at least 80 percent of its applicable Facilities are fully compliant with Requirements R1, R2, R3, and R4.
- By the first day of the first calendar quarter, five calendar years following Board of Trustees approval, each Generator Owner shall have verified 100 percent of its applicable Facilities are fully compliant with Requirements R1, R2, R3, and R4.

### ***Retirements***

None

### ***Justification of Phasing***

Requirements R1, R2, R3, and R4 involve evaluation of existing protection system settings and equipment capabilities. Typically, generator protection system setting changes are made during scheduled generator outages. The Implementation Plan allows a five-year window for these changes to be made which corresponds to typical outage cycles. Generating units that have outage cycles that extend longer than five years are not typically base loaded and offer opportunities to effect protection system settings changes during economic shut down periods.